SECTION 3
ANALYSIS OF REVISED SALES GAS PIPELINE ALTERNATIVES

3.1 Introduction

This section addresses several alternative routes for the 200 foot-wide sales gas pipeline corridor around the Jonah II Field. The DEIS assumed that sales pipelines from the PAPA would travel south through the middle of the Jonah Field (see Figure 2-9 on page 2-28 of the DEIS). In comments on the DEIS, McMurry pointed out that such a route would require crossing of more than 100 individual well connection pipelines (see Comment 19 of Letter 13 in Section 5 of the FEIS). Questar has expressed the same concern. BLM concurs with Questar and McMurry's contention that crossing this many lines would result in legitimate safety concerns and that alternative sales pipeline routes to avoid the central corridor through the Jonah Field would be prudent.

Several route deviations from the existing sales pipeline corridor analyzed in the DEIS have been proposed to safely circumvent existing pipelines within the Jonah II Field. The route deviations are shown on Figure 3-1 and are briefly described below. Whichever alternative route deviation is selected, it would probably provide a right-of-way for future pipelines to avoid the Jonah Field.

3.1.1 Alternative A. Proposed by BLM, this route deviation would begin in the existing natural gas pipeline corridor south of the New Fork River (Section 14, T. 31 N., R. 109 W.) and follow existing roads (County Road 23-106 west and south along the New Fork River to State Highway 351, then south along the west side of BLM Road 5406 - the Burma Road - to link with the Luman Compressor Station in Section 24, T. 28 N., R. 109 W.). The entire 22.3-mile route deviation would be adjacent to the existing disturbed rights-of-way associated with roads and would result in a short-term disturbance to 540.6 acres. The alternative is 0.3 mile shorter than the original sales pipeline route described in Section 2.5.7 of the DEIS.

3.1.2 Alternative B. Proposed by McMurry, this shorter route deviation would begin in the existing pipeline corridor just north of the Jonah Field (Section 23, T. 30 N., R. 108 W.) and follow an existing 2-track seismic road southwest to BLM Road 5406 - the Burma Road - then continue along the west side of the Burma Road to the Luman Compressor Station. This route deviation would be approximately 14.9 miles long and result in a short-term disturbance to 361.2 acres. The alternative is 1.8 miles longer than the original sales pipeline corridor described in DEIS Section 2.5.7.

3.1.3 Alternative C. Proposed by Questar, this route would begin in the existing pipeline corridor approximately 1 mile north of State Highway 351 (Section 29, T. 31 N., R. 108 W.). This 27.7-mile route would cross, for most of its length, previously undisturbed terrain. Also, this route would be longer than either Alternative A or B and, instead of terminating at the Luman Compressor Station, would continue to the existing pipeline corridor in Section 24, T. 27 N., R. 111 W. This alternative would result in a short-term disturbance to 671.5 acres and would be approximately 6.8 miles shorter than the original sales pipeline corridor described in Section 2.5.7 of the DEIS.

3.2 Affected Environment

Transportation. All three alternatives would be constructed in Sublette County. Alternative A would parallel existing improved county and BLM roads with dirt and gravel surfaces. The alternative would cross State Highway 351 which is paved. Alternative C would also require a new crossing of State Highway 351. Alternative B would primarily follow an unimproved 2-track road that formerly was used for seismic surveys. As with Alternative A, the route for Alternative B also parallels the Burma Road (BLM Road 5406). Alternative C would cross mostly undisturbed terrain for most of its length.

Land Use/Residential Areas. There is residential development along the New Fork River proximate to Alternative A where it follows County Road 23-106. Otherwise, none of the 3 alternatives would be near residential areas. All alternatives would cross shrub and brush rangeland.

Recreation. Recreation in the area of all alternatives is managed as a Desert General ORV Open Use Area with vehicles allowed to travel anywhere, not limited to existing roads and trails.

Visual Resources. Alternatives A, B and C would cross areas managed as VRM Class IV which allows for major modification of the existing character of the landscape.

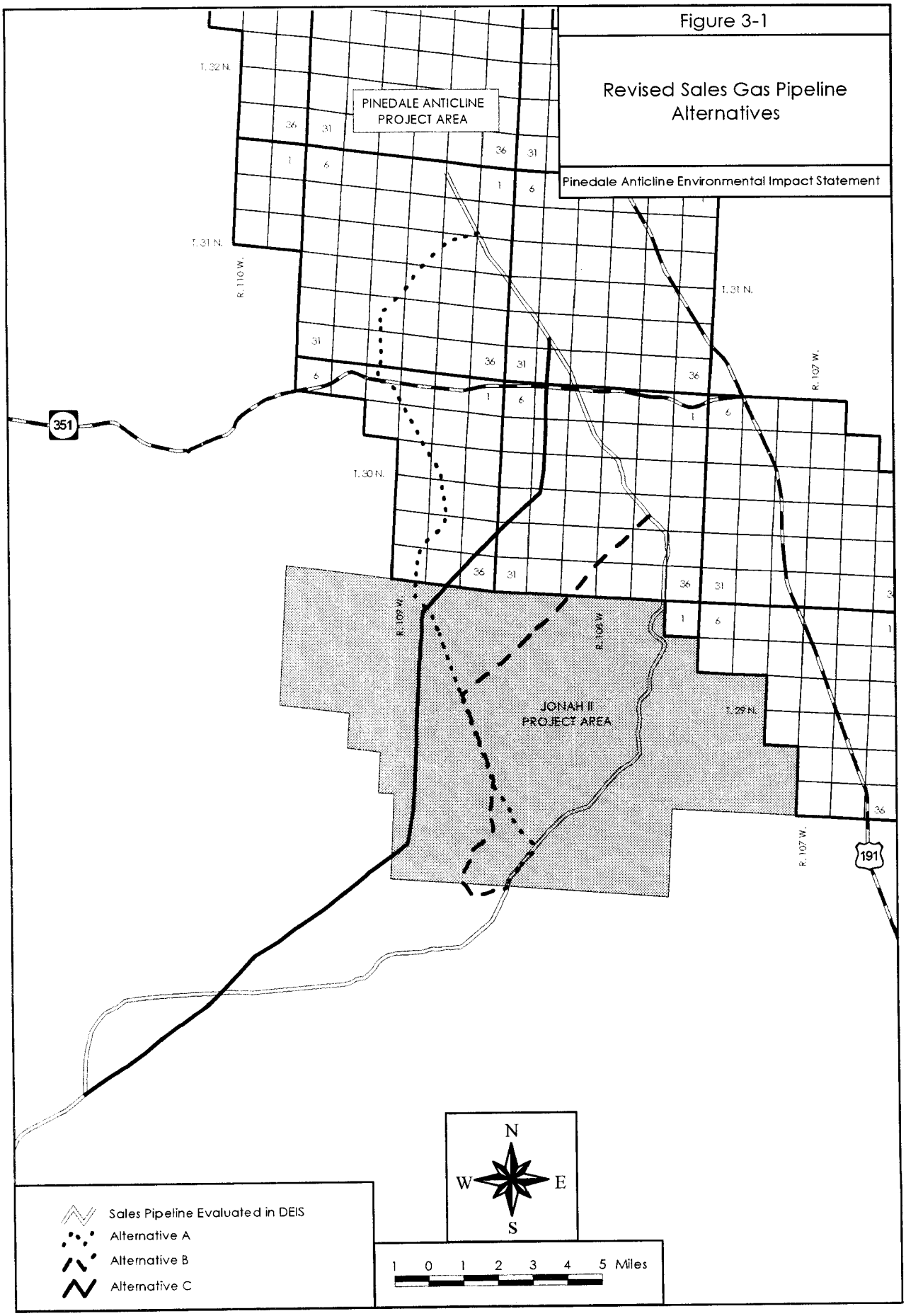
Figure 3-1
Revised Sales Gas Pipeline Alternatives
Pinedale Anticline Environmental Impact Statement
PINEDALE ANTICLINE PROJECT AREA
JONAH II PROJECT AREA
T. 32 N.
T. 31 N.
T. 30 N.
T. 29 N.
R. 110 W.
R. 109 W.
R. 108 W.
R. 107 W.
351
191
N
W
E
S
1 0 1 2 3 4 5 Miles
Sales Pipeline Evaluated in DEIS
Alternative A
Alternative B
Alternative C

Cultural Resources. Alternative A would cross the Lander Cutoff of the Oregon Trail where County Road 23-106 presently crosses the trail. At the point of intersection, Alternative A would be near the James Bertram Homestead. Alternative C would also cross the Oregon Trail at a previously disturbed location adjacent to the existing sales pipeline corridor. Alternative B would not affect any historic trails.

Geology. The Burma Road along which Alternative A would follow and the Alternative B and Alternative C routes east of the Burma Road would mostly cross the New Fork Tongue of the Wasatch Formation. As Alternatives A and B both approach the Luman Road and Alternative C crosses the Burma Road, they would cross the Laney Member of the Green River Formation.

Paleontological Resources. Plant, vertebrate, and invertebrate fossils from the early to mid-Eocene are likely in both the Wasatch and Green River formations.

Soil Resources. Alternative A would cross the Blue Rim Area of sensitive soils with some slopes of 15 percent or more. Those soils have high runoff rates and erosion potential.

Vegetation Resources. Land use and cover classified by the U.S. Geological Survey in the areas which would be affected by all alternatives is classified as shrub and brush rangeland. Vegetation along Alternative A is primarily Wyoming big sagebrush interspersed to varying degrees with mixed grass prairie and desert shrub communities. Similarly, Alternative B would cross Wyoming big sagebrush-mixed grass prairie vegetation for most of its length but also some desert shrub vegetation as it nears and parallels the Burma Road. Alternative C would cross mostly Wyoming big sagebrush-mixed grass prairie but also patches of desert shrub.

Grazing Resources. North of State Highway 351, Alternative A would cross through the New Fork Individual Grazing Allotment before passing into the Blue Rim Desert Allotment for most of its length along the west side of the Burma Road. Approximately 2.5 miles north of the Luman Road, Alternative A would enter the Sand Draw Allotment for its duration. Where Alternatives B and C begin at the existing pipeline corridor, their proposed routes would be within the Blue Rim Individual Allotment. After proceeding west, Alternative B would enter the Sand Draw Allotment. Alternative B would enter the Blue Rim Desert Allotment approximately 0.8 miles before it begins paralleling the Burma Road. Similar to Alternative A, Alternative B would re-enter the Sand Draw Allotment approximately 2.5 miles north of the Luman Road and be confined to that allotment for the remainder of its length. Approximately 2 miles before Alternative C crosses the Burma Road it would enter the Blue Rim Desert Allotment before crossing the South Desert Allotment for the western-most 10 miles of the proposed route. All allotments crossed by pipeline alternatives are managed for cattle grazing.

Wetland and Riparian Resources. Within the PAPA, Alternative A would cross several wetlands associated with intermittent tributaries to the New Fork River. South of State Highway 351, Alternative A would cross wetlands associated with North Alkali Draw and Granite Wash, both of which are also intermittent. Likewise, Alternative C would cross North Alkali Draw, Granite Wash, Alkali Creek and West Buckhorn Draw. Alternative B would only cross Sand Draw. All drainages crossed by pipeline alternatives are intermittent and subject to flooding after intense rainstorms.

Threatened and Endangered Species. Except where Alternative A is adjacent to County Road 23-106 and proximate to the New Fork River, none of the alternatives would be within habitats used for nesting or wintering by bald eagles Federally listed as threatened. Alternative A would cross some white-tailed prairie dog colonies within the PAPA and south of State Highway 351 as it parallels the Burma Road. There are no known prairie dog colonies that would be crossed by Alternative B until it reaches the Burma Road. Both alternatives would cross a prairie dog colony approximately 2.5 miles from the intersection with the Luman Road. Alternative C would affect prairie dog colonies north of State Highway 351 but, based on existing maps of colonies, is not expected to affect any others.

Prairie dog colonies are potential habitats for black-footed ferrets (Federally listed as endangered) and for mountain plovers, proposed for listing as a threatened species. Mountain plovers are also expected to occur in desert shrub and mixed grass prairie in the area. Swift fox, a candidate species, may occur in the region but they have not been documented in Sublette County. Though no Federally listed threatened or endangered plant species would be affected by the alternatives,

Alternative A could potentially pass through rare plant habitats that are associated with Blue Rim and North Alkali Draw.

Wildlife and Aquatic Resources. Alternative A would pass through crucial winter habitats used by pronghorns along County Road 23-106 and the Burma Road south of State Highway 351 for approximately 2 miles. The remainder of Alternative A and all of Alternatives B and C would be within habitats used by pronghorns in the Sublette Herd Unit during spring, summer and fall. All alternative routes would pass within 2 miles of several sage grouse leks: 6 leks would be within 2 miles of Alternatives A and B and Alternative C would pass within 2 miles of at least 5 leks. Alternative A would also pass within 1 mile of nest sites used by ferruginous hawks and other raptors (golden eagles, prairie falcons, American kestrels) along Blue Rim and North Alkali Wash. Alternative B would pass within 1 mile of an inactive ferruginous hawk nest where it crosses Granite Wash. Alternative C would pass within 1 mile of several ferruginous hawk nests, one of them recently active, along Blue Rim. Burrowing owls are likely to nest in prairie dog colonies, desert shrub or mixed grass prairie where vegetation is short and suitable burrows are present. No fisheries or aquatic habitats would be affected by any alternative.

3.3 Environmental Consequences

Based on analyses presented in the DEIS for the sales pipeline and with BLM's standard stipulations (see Appendix A in the DEIS), best management practices and spill prevention, countermeasure and control measures applied, no adverse impacts due to any alternative are anticipated for the following: environmental justice, socioeconomic resources, land use-residential areas, recreation resources, visual resources, ground water, surface water, fisheries and aquatic resources. Impacts to other resources are described, below.

Mitigation opportunities and monitoring recommended in Chapter 4 of the DEIS would also apply to these route deviations.

Transportation. Alternatives A and B could temporarily impact traffic on State Highway 351 and possibly on County Road 23-106 and BLM Road 5406 during construction. Alternatives C would not affect traffic except possibly where they would cross BLM Road 5406 Burma Road. Standard practices imposed by the Wyoming Department of Transportation and the BLM are expected to be adequate to assure public safety during construction of the crossings.

Cultural Resources. Alternative A would cross the Lander Trail adjacent to existing road disturbance - there would not be a significant impact at this crossing location. On-site examinations would be necessary to determine the potential of each alternative to affect buried cultural materials. BLM may require a Class III inventory and/or monitoring along the pipeline alignment for whichever alternative is chosen.

Air Quality and Noise. Wind-eroded dust from disturbed surfaces along either pipeline alternative and fugitive dust generated by construction traffic are expected to be short-term impacts to local air quality. The pipeline disturbance would be successfully reclaimed in 3 to 5 years. Noise associated with construction equipment would also be temporary but construction of Alternative A could affect residences along the New Fork River. Noise from all alternatives could affect sage grouse leks and nests if construction occurred during the period from March 1 to July 31.

Geology and Geologic Hazards. Although none of the alternatives would cross active faults or landslide areas, Alternative A would cross sensitive soils associated with Blue Rim, some on slopes of 15 percent or more. Those soils have high runoff rate and erosion potential. All alternatives could affect fossils present in the Wasatch and Green River formations.

Soils. Alternative A would cross some sensitive soils on slopes of 15 percent or more as the route ascends Blue Rim. All alternative routes are expected to cross soils that are saline and/or sodic and other soils with low reclamation potential. Specific mitigation opportunities for use in those instances were provided in the DEIS (see Section 4.14.4). Impacts to soils due to any alternative would be short-term because disturbed areas would be revegetated within 3 to 5 years following construction.

Vegetation. Disturbances by all alternatives would mostly affect Wyoming big sagebrush with some impact to mixed grass prairie and desert shrub vegetation. Much of the vegetation which would be affected by Alternative A and some which would be

disturbed by Alternative B, however, would be previously disturbed along roadsides. Successful revegetation, primarily with herbaceous species, is expected within 3 to 5 years.

Grazing. Alternative A would affect 3 grazing allotments (New Fork Individual, Blue Rim Desert, Sand Draw). Alternative B would affect the Blue Rim Individual, Sand Draw, and Blue Rim Desert allotments. Alternative C would affect the Blue Rim Individual, Blue Rim Desert and South Desert allotments. Impacts to grazing by lost forage would be a short-term effect of construction

Wetlands and Riparian Resources. Alternative A would affect limited wetlands associated with 3 intermittent drainages (unnamed tributary to New Fork River, North Alkali Draw, Granite Wash). Wetlands associated with those drainages are in poor condition due to lack of streambank vegetation. Consequently, they may be subject to erosion during intense precipitation and pipeline construction could exacerbate runoff over the short-term. Wetland mitigation opportunities described in the DEIS would apply to construction of Alternative A (see Section 4.17.4 of the DEIS). Wetlands would not be affected by Alternatives B or C.

Threatened and Endangered Species and Special Status Species. Construction of Alternative A has a remote potential to disturb wintering bald eagles along the New Fork River, but only if construction occurred during winter. Since that portion of the alternative is also within pronghorn crucial winter range, timing stipulations relevant to protecting wintering pronghorns would also eliminate potential impacts to bald eagles. All 3 alternatives would pass through white-tailed prairie dog colonies, desert shrub, and mixed grass prairie that could be inhabited by mountain plovers. Surveys conducted for plovers prior to construction will determine if impacts would occur. Alternatively, construction occurring before or after mountain plovers' nesting season (mid-April through July) would avoid impacting the species. Similar timing of construction would reduce potential impacts to burrowing owls and other ground-nesting bird species. Swift fox are not expected in the project area and no impacts to them are anticipated. Preliminary indications are that no sensitive plants occur within either alternative right-of-way but only on-ground surveys can conclusively demonstrate their absence.

The pipeline may require one-time water withdrawals from the Green River drainage for hydrostatic testing after construction and before operation or testing may be done with gas. The U.S. Fish and Wildlife Service has determined that such withdrawals from surface water or groundwater will jeopardize endangered fish species downstream in the Colorado River System (humpback chub, bonytail chub, Colorado pikeminnow (squawfish), razorback sucker). To offset impacts, the U.S. Fish and Wildlife Service requires a one-time monetary contribution to the fishes' recovery program for water withdrawals in excess of 100 acre-feet.

Wildlife Resources. Alternative A would pass through pronghorn crucial winter habitat for 2.3 miles. Construction of Alternative A would remove approximately 54.5 acres of sagebrush-dominated vegetation within that crucial winter habitat. Since sagebrush may take 20 years or more to regenerate, removal of that important winter browse plant species would be a long-term impact to wintering pronghorns. Timing stipulations relevant to protecting wintering pronghorns would eliminate potential construction-related disturbances while they are on crucial winter range, from November 15 through April 30. Construction and surface disturbances by the alternatives to vegetation on pronghorn spring-summer-fall ranges are not expected to significantly impact pronghorns.

All alternatives would pass within 2 miles of several known sage grouse leks and within 1 mile of known raptor nests. To protect nesting raptors and sage grouse, construction activities would be prohibited within 2 miles of sage grouse leks and within 1 mile of occupied or active raptor nests between February 1 and July 31 (see Appendix A of the DEIS).